

# A landscape architectural design approach:

## The restoration of the Angel Tower and the Cloister of the Cathedral of Cuenca

Joaquín Ibáñez Montoya | Maryan Álvarez-Builla Gómez

Polytechnic University of Madrid

### Abstract

This article aims to show the recent evolution of concepts such as Cultural Heritage, by offering a survey of the architectural restoration project methodology of the Cuenca Cathedral. *The Charters of Athens*, from 1931 and 1933, –the bases of modernity– converge today after almost a century of leading separate paths: land planning and cultural interpretation, space and time recuperate a meeting point, which should have never been lost. The article basically assesses the potential contemporary projects on heritage constructions can offer when studied as a landscape journey. In order to certify the transformations from the present context, the singular monument of Cuenca Cathedral is taken as a model. Its stone materiality provides a memory of secular morphology and clear technical and social wealth. This model unfolds as a dialogue between Theory and Practice reflected on its conservation works. After thirty years of restoration experience on the building performed by the authors, the two last interventions are thoroughly commented in this article revealing a new strategy in the architectural project performance.

**Keywords:** architectural project, cultural heritage, landscape, cathedral, Cuenca.

### Resumen

Este artículo trata de analizar la reciente evolución de los conceptos sobre intervención en el Patrimonio Cultural. Para ello utiliza como modelo el proyecto metodológico aplicado sobre las dos últimas actuaciones efectuadas en la Catedral de Cuenca. *La Carta de Atenas*, 1931, que estableció las bases de la modernidad sobre las dos trayectorias de espacio y tiempo, concuerdan hoy después de casi un siglo, recuperando su punto de encuentro. El artículo básicamente valora el potencial que los proyectos contemporáneos de intervención en el patrimonio pueden ofrecer cuando estudias su

trayectoria en el paisaje. En orden a certificar sus transformaciones desde la actualidad, el singular monumento de la Catedral de Cuenca, utilizado como modelo, nos aporta a través de sus materiales y morfología la memoria secular que nos informa de sus técnicas constructivas y valores sociales. Este modelo abre un diálogo entre teoría y práctica reflejado a través de los trabajos de restauración aplicados. Después de treinta años de experiencia restauradora llevada a cabo por los autores, las dos últimas intervenciones que son minuciosamente expuestas, revelan algunas nuevas estrategias de aplicación en el proyecto de intervención.

**Palabras clave:** proyecto arquitectónico, patrimonio cultural, paisaje, catedral, Cuenca.

## Introduction

In this study, the restoration work process developed for the conservation of Cuenca Cathedral is explained under a critical reading. The Cathedral of Santa Maria de Cuenca, located in the Spanish Castilian plain —considered as *time* and *space*— is a noticeable example of the complex experiences undergone for more than a Millennium. The restoration process has also been a thoughtful reflection on the restoration to be applied and its developments in the last century. During the last thirty years —time enough to allow for deep thought and criticism— the condition of the building and the “future archaeology” has unfolded ensuring not only the present state and reading of the building, but also including new parameters, which have been incorporated to the discipline of architecture (*La conservación del patrimonio catedralicio*, 1993) [1].

This article follows a logical order adding to the synchrony of the city construction and to the diachronic evolution of it, the previously stated deep analysis of the restoration process, and above all, the new parameters this will imply support these changes in architecture<sup>1</sup> (Álvarez-Builla and Ibáñez, 2009)<sup>2</sup> [2] (*Figure 1*). To analyze the way cultural-landscape encounter takes place, citizens need to articulate a repertoire of unknown disturbing factors and simulations of the intervention project. As this analysis is performed in the present fully urbanized context, the viewer needs to identify which academic consequences this might have<sup>3</sup>. The new spaces inhabited by people need to be placed within the framework of the post-industrial modernity where the stubborn presence of architectures such as the Cuenca Cathedral contribute with a collection of contents accumulated by history and ready to be interpreted, to ensure its survival and sense.

Matter, memory and method have been the parameters associated by UNESCO to World Heritage inscribing the city as a “historic walled town”<sup>4</sup>. Indeed, Heritage is *matter* —in the different frames of the present architecture evolution—, it is *memory*, —the modern interpretation according to the revised reading of the past—, and it is *method* —it establishes an adequate system providing mechanisms of the monument projection for its structure conservation—. Similar studies have been performed by researchers and Spanish specialists in past years, following the European Landscape Convention and the Spanish National Plan for Cathedrals (*Plan de Catedrales*, 2002) [3]. This has brought up a recent bibliography on cathedrals updating their state and, more important, a protocol methodology to face the cathedral issue has been established. Examples of such studies are the recent works on the cases of Tarragona (Figuerola and Gavalda, 2007) [4] and Sigüenza (*La Catedral de Sigüenza*, 2006) [5].

The work presented here draws upon these items of matter, memory and method, according to six periods or intervention phases. First, main principles will be stated dealing with three different attitudes on the present landscape

1. All the study is framed within the stated intervention and experience together with a research Group Project focusing on urban and land interventions in historical landscapes of Industrial Time. See Research Group: Cultural Landscape GIPC of Polytechnic University of Madrid.

2. Maryan Álvarez-Builla and Joaquín Ibáñez Montoya are the architects responsible for the conservation works of the Cuenca Cathedral from 1979.

3. Recently, a collective exhibition has been organized and a book on the Cathedral was released by a wide group of experts have been included: *La Catedral de Santa María de Cuenca: tres décadas de intervenciones para su conservación* (2009).

4. Cuenca city has been inscribed in the UNESCO World Heritage list in 1996.

of the Cuenca Cathedral: the site as a *new landscape*, as a *dialogue between project and glance*, and as the *result of a drama*. This method is hence, a reverse way of proceeding, starting by the consequences to reveal the origins. By doing so, the cathedral reveals the two most important interventions as a summary of open results the contemporary project and its alternatives.

## CONCEPTS SUPPORTING THE STUDY

### A contemporary project: a landscape project

Architecture's modern culture has shown an intense conflict over the meaning of "project", in recent years. Landscape and Heritage represent two arguments according to the Spanish philosopher José Ortega y Gasset, who said that "landscape" is "what each one of us brings with oneself"<sup>5</sup>. Without an observer, landscape does not exist; but neither does it exist without history. According to this, the cathedral becomes an infinite source of documentation from the point of view of the Architecture History, but also from the human global cultural production (Muñoz, 2008) [6]. The cathedral has become now a multicultural transversal and this innovative dialogue. Enjoying the results of it in these early years of the Millennium means having an ideology in line with what Tomas Khun stated (Khun, 2000)<sup>6</sup> [7]. According to him, the scientific knowledge responds to the objections of the past but also of those of the future. The cathedral as accumulated layers of history allows for learning, for transforming, and for restoring it. It means understanding the monument and its architectural project. It is not only rectifying a secular reading of Heritage as the material process performed around memory, or amending the intervention methods, but also examining the current stimulation parameters as *landscape project*.

The characteristic of Cuenca's example is its transformative feature, and when analyzed using historical strategies, its *capacity for enlargement and alteration* becomes a fundamental issue. That is, the cathedral develops into a true document in space and time, such as city and territory. The idea of a *loss of meaning* in its voyage to the present time needs an understanding of the monument, not as a nostalgic reference but as a chance for recovering from this unique potential *time dimension*. It maintains somehow the ancient relationship between *nature* and *memory* which has always been part of architecture and which now focuses on the changes brought about by Industrial Time. Conceptual alterations, or instrumental ones derived from the new "digital communication era", have provided Heritage evolution and change as a collective construction (Bordieu, 2003) [8]. In this way, the cathedral memorable space exhibits a dense repertoire of dialogues and foundations to restore mapping criteria, which will support new hypotheses. Two ideas have been used for the restoration process: pursuing what intervening on a monument means today and how to address it in the present socio-economic context, and, another, the idea which narrows its current re-reading as a prominent and continuous project.



Fig. 1. Cathedral view in the contemporary historic city. Photograph by Jose Latova.

5. See German Del Sol, "Letters from November 11th 2011".

6. See chapter V about metaphorical interpretation with historical crisis.



Fig. 2. Exterior wall after its restoration. Photograph by Jose Latova.

This strategy of the scientific project coexists well with Eduardo Chillida's or Margarete Yourcenar's creative silences<sup>7</sup> (Oteiza, 1943) [9]. These silences are essential in contemporary artistry. They provide clues on the revised project, to come closer to its *true* poetic reason. The monument time is not set through readings of the successive interventions performed on it, but through the responsibility of different architects and building engineers who intervened in the construction and transformation processes with their projects (Smithson, 2006) [10].

### The Cuenca Cathedral

Cathedrals describe a set of experiences, which conform the morphology of the European city providing its current configuration through three distinct periods. Their architecture exhibits a sum of landscapes to be built, of *transformations* and *restorations* that are today clarified by other sub-landscapes or normative positions, which are, in turn, the reflection of the two centuries of restoration intervention—in

Cuenca just one century. This study shows a *modern objectivity* to the historian or biographer, and also to the citizen. Citizens have been enjoying the work performed, that now concludes in the Cathedral of Cuenca. Indeed, the two last interventions further explained evidence the monument constructive complexity.

This pre-industrial time, which originated sites as Cuenca city, is open to a different sensibility in its emerging "biopolitical" management (Gil, 2008) [11]. The monumental ancient history will generate new figures and networks in the process of *active restoration* to develop relevant plots supporting the construction analysis, in the broadest sense. Elements, as incomplete and open objects of knowledge and research, are selected in an effort to understand an existing project of *plural memory*. Obtaining conclusions is not possible, or perhaps necessary, but rather, criteria are.

## A NEW LANDSCAPE THROUGH HERITAGE CONSERVATION

### New concepts and new methods

Understood as the wording of a landscape to be designed<sup>8</sup>, the Cathedral of Cuenca shows a *double temporality*. An active conservation strategy, originated around 1968, and primarily stated by the critic Cesare Brandi during the heroic modernity crisis, generates a tighter guidelines in accordance with the social demands of an emerging sensibility (Brandi, 1977) [12]. From this position, creativity as artistry needs to deal with a picture of change in Heritage interventions. Regarding the concept of artistry, as Alain Roger mentions, "the artists, should remind us of this first but forgotten truth: a country is not just a landscape, and between one and the other there is the drafting of art" (Roger, 2007) [13].

7. Eduardo Chillida, a follower of the sculpturer Jorge Oteiza, uses the concept of creative silence as a constructive element.

8. The decisions to promote a new discipline of Landscape to allow architects to survey the urban space was initiated by Jose Luis Sert, Dean of the Harvard School of Architecture during 1953-69 in a world shocked by the postwar and growing quickly towards total urban development.

The debate between the historic melancholy and its modern appropriation forwarded concepts which were later forcefully consolidated, as in the Kraków Charter, in 2000, which prevented explicitly against any reductionist reading of identity. It talks about the caution to be applied before any reactionary manipulation; i.e., emphasizing critical identity as opposed to nostalgic identity

Heritage conservation is not only understood as a sustained subject, it also includes a militant interpretation. The well-known example of the project on Castelveccchio, Verona, Italy, started in 1956 and completed twenty years later —thanks to a particular sense of time that the author Carlo Scarpa defends— accurately reflects these new criteria (Figure 2). This project naturally incorporates the "craft of the artisan" and associates it with an instrument of *scientific conservation* as well as a stimulus for creative readability in agreement with this change of direction. This stimulus is set as an alternative "resistance" reaction. The attitude of the contemporary architect since then, is to be plural: the architect will be considered as just one person in front of the building, one more in the provision of skills in collaboration with all those who have already been there. The architect interacts on the basis of this interdisciplinary collaboration.

For such a practice, architects are clearly debtors not only of Cuenca as a city but also of the various interventions in Europe. Through the heritage intervention strategy, a landscape of walls and masonries is developed on the stratigraphy of altered historical remains. This allows for the inclusion of "industrial prostheses" to activate them. Materials and functional programs were spread on the ground, —like paving stones— enabling the access and musealization of the exposed pieces to be perceived as the result of an integrative thinking. This restoration plan proposes a reading policy of spectacular results that the pre-war period had already incorporated in terms of cultural environment.

### Application of these new concepts in Cuenca

With the monumental inscription in the UNESCO World Heritage List, the Cathedral of Cuenca started a radical transformation which reminds an evocative condition, of Albert Dürer's engravings: *Melancholia I* and *St. Jerome in his Study*, both from 1514, and *Knight, death and the devil*, from the previous year. The three of them reflect a very modern attitude of the author expressing an activity capable of organizing the debate between nostalgia and the resulting appropriation of memory enrichment, as an antidote against all kinds of intransigent readings. Intervention on decadent architecture since then will no longer be a matter of ideas but of meaning and consistency, temporal context and urban functionality. The humanized space will initiate immediately a path as a construct to occupy a central place in the human landscape.

The humanized space, as a project phase from an initial modernity, will be a true revolution in the "way one watches and is watched". This phase is incorporated within the European Landscape Convention and associated normatively to the new meaning of monument as *public space* (*Convenio Europeo del Paisaje*, 2007)<sup>9</sup> [14]. The latest interventions carried out on the Cathedral of Cuenca clearly show this issue exposed a few decades ago. Amedeo Bellini points out that: "conserving is finding a methodology to reinterpret without destroying" (Bellini, 1996) [15]. "Destruction or alteration exist for vital reasons: they are the inevitable result of a value judgement" involving a discipline model based on love of the elegant combination of *surprise* and *rigour*. It is a perceptive, aseptic revision in the fight against styles.

The detour work is an ideal tool to distort "cultural landscape" by architecture, to obtain the desired critical effect "of physical consistency and double polarity —historical and aesthetic— with a view to their transmission to the future" (Marinas, 1993)<sup>10</sup> [16]. Perceiving is now giving meaning to stimulus; and as such, one of the current charac-

9. Any part of the land is perceived by the people as the result from the action and interaction of natural and/or human factors.

10. A provoking debate of reinterpretation promoted by the situationists has recently been recuperated by the environmental readings. Gilles Deleuze uses this principle as a contemporary idea of construction.

teristics of the gaze is to be creative. The restoration intervention ended the century through an attitude of *landscape mediation* causing ever greater interest in society and in the conservation debate. The sensitive problematic issue of landscape mediation is polluted both by aesthetics and philosophy and, of course, by politics at all levels. Regarding such risk, Peter Zunthor reminds us that: “more than with architecture people are particularly sensitive with public spaces” (Zunthor, 2004) [17].

Therefore, the *Vienna Memorandum*, from 2005, as a consequence of these controversies, confirms the convergence of all this memory architecture within the city. According to this transference, the document suggests the directions to be followed: land planning and quality space for living, projecting a more comfortable and logical city. When seizing materials, the social collectivity appropriates them as “public space” in a new way and asks the material relevant questions on how to recycle the empty monumental or obsolete space generated by the industrial culture. Regarding the added value in constant increase, society wonders how to treat the new structure of global landscape from the existing reductionist project of the architect (Clement, 2007) [18], foretelling unknown parameters in this new perception.

## DIALOGUE BETWEEN CONTEMPORARY GAZE AND PROJECT

The intervention of conservation and restoration in the Cathedral of Cuenca, in recent decades is inserted within this *expanded project* strategy. As an available enclosure of unfinished materials is redefined by the strategy of the Master Plan, seeking to integrate and develop the double temporality. This strategic programmed approach produces a “giant methodological leap”. The timing of the intervention, and coordination of works became a common problem, as in the other Spanish cathedrals—more than eighty (*Bienes culturales*, 2002)<sup>11</sup> [19] The first Plan of Cathedrals established at the end of last century is the drafting of an ambitious *collective specification* to homogenise the contemporary complexity, while leaving open space for local debate and questions to be answered.

An architectural intervention is also a working transversal strategy. Interacting experiences, —which implies unravelling current responses to address a *preventive strategy*— bind the syntax of old and new materials, projects, and data to urban and territorial scales. The strategy is to make “virtue out of necessity”, achieving a more appropriate instrument, more innovative to generate an action logical framework as research project.

Designing is to be performed on a constructed materiality which involves solving a poetic pending desire to act. As an exercise in architecture design, the Cathedral of Cuenca is valued as a pilgrimage centre, not only a religious one but also a typological one. The cathedral as a special reference and unique landscape in the city re-defines its limits in front of a visitor in need for a double answer: the perceptive one, of what exists there, and its identification as a place. The present cathedral project in its continuous historical destruction-construction journey ignores the obvious to focus especially in paradoxical issues and in “everything which is still to be written” (Marinas, 1993) [16]. The aim is “preserving to learn”, not “knowing to preserve”.

The immediate emergency, as the Charter of Kraków stated, is *sustainability*—an ambiguous but accurate word. As collective culture, the Cathedral of Cuenca needs to be up to the challenge, at a time of recycling, of colonization and of overabundances. The accumulation of *knowledge of excellence* in these venues becomes a paradigmatic space to

11. Once the technical specifications were agreed upon and after several topic meetings, in 1998 the Ministry of Culture of Spain launches the First National Plan on Cathedrals. They start drawing up a Master Plan with a validity of 10 years as an alternative tool for the traditional Project. A group of archaeologists, engineers, chemists, urban planners, geographers, museum curators, and archivists... incorporate their analysis to the diagnosis and conclusions.

verify these assumptions. Knowledge is subject to the new gaze by the collective intervention methodology. Both in terms of technological innovation and design, the cathedral rehabilitation requires a protection of the monument from the present *information and communication field*, which implies an understanding and organization of the Previous Studies (Fernandez-Alba, 1998) [20]. These previous studies of “secret reflection” developed since the 1980s, helped decide the new path to be followed, according to criteria from the previously stated Master Plan. After fifteen years of radical revision, the process is consistent with a true re-founding process of the times Spain was living (Ibañez, 1983)<sup>12</sup> [21]. Thus, a debate of historicist protection is closed, while another one of dialogue will open.

## THE RESULT OF A DRAMA. STUDY CASE: THE CATHEDRAL OF CUENCA

### A ruin during the Political Regime change

Modernity began in Cuenca —a city on a singular mountain, and with difficult access from Madrid at that time— in the midst of dizziness before the belated end of the Ancient Regime. The need to draw a new map of the land by the rising bourgeoisie, who had seized power, forced Ildefonso Cerdà to write his famous urban planning treaty of the memory of the Industrial Period. Regarding the elements provided by the Historical Heritage, monuments derived from a Romantic legend into a phenomenological perception and creative artistry.

In this way, this Cathedral, declared as National Monument after a dramatic ruin, in 1902, with the material collapse of the Tower of the Giraldo, states a crisis that confronts the place, in the heart of this debate. The scholar Vincent Lamperez signed the first draft of restorative intervention in a still historicist context that will shape the Cathedral evolution until the 2nd World War<sup>13</sup> (Navascues, 2009) [22]. Closing a long parenthesis opened a century earlier with the Baroque transformation of its “Transparente”<sup>14</sup>, the cathedral shows a curious regression between that scenography progressive activation and the late tradition. Between the two, lies a step backward of a 19th century loss in the building, in the landscape and, perhaps, even in the country (Vela, 2009) [23].

Almost a hundred years later, new changes in the restoration sensitivity lead to a new revision. At the end of the 20th century, three attitudes implied a new documental interpretation criterion for the cathedral conservation, which cannot yet be understood or handled without the context discipline in which it is immersed; without considering the transformations and the various changes surrounding the building. In fact, a new belated reading, in the 1980s, after this first stylistic attitude, assumes the basis of the *positive restoration* procedure that frames its current drift<sup>15</sup>.

### Foundation of Cuenca Cathedral

Apart from the biography, the geography of the Cathedral of Cuenca is essential. Its location plan becomes a map, but this map implies a change in the gaze on a Heritage scheme of eye-perceptive significance whose historical references are based on Giorgio Muratore, who proposes a system of representation based on the archaeological and the morphological matter (Barosio, 2009) [24]. This approach involves having a model to explore the monument in an updated

12. In 1975, in Spain, Franco's dictatorship ends after four long decades. This implied a revision of the country state as well as of the Cultural Heritage and its conservation. To this end, Spain will open itself and get fully installed and integrated within the European vanguard.

13. After a detailed survey, works began eight years later. The difficulty of the work is similar to the one performed by Ventura Rodríguez a century earlier. After the death of the prestigious scholar, the responsibility of the works lied in the hands of Modesto Calvo Otero, his follower; once the Civil War finished in 1939, the architects Jose Maria Rodríguez Cano and Juan Manuel González Valcárcel followed up the work.

14. The term “transparente” is used by the architects in Spain in the 18th Century to solve the Catholic Church prohibition of people walking behind the Christ figure in the ambulatory; in this way, natural lighting in a magic way, is provided.

15. The term “in style” defines the Romantic-idealist interpretation adopted by the restoration movement in Spain following the French initial interpretation associated to Viollet-le-Duc.

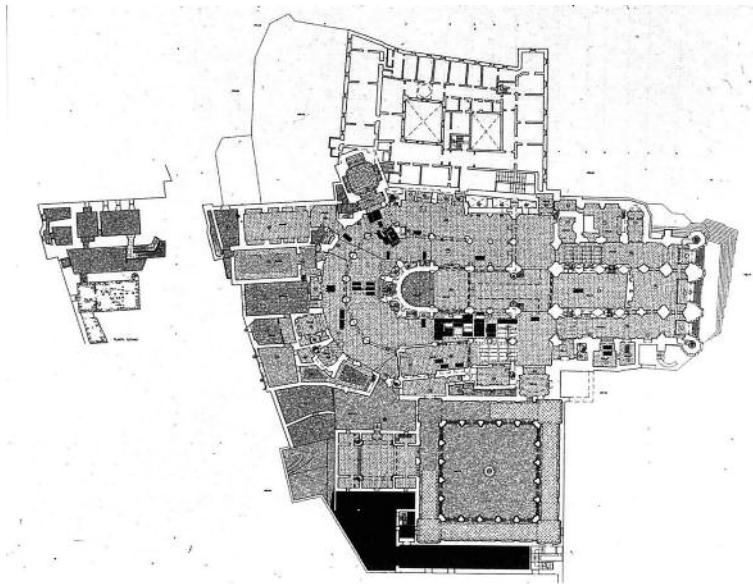


Fig. 3. Floor map belonging to the Master Plan. 1998.

*main settlement vector* turns its axis to the West redirecting the trace of the church and correcting the configuration of the previous layer of the mosque, which had earlier been there<sup>16</sup>. The plan was developed according to the Norman tradition with a choir in its transept accompanied by two stepped small apses. These no longer exist, but they would confirm an origin hypothesis from the French Picardy region; this in turn, shows autonomy in the cathedral initial trace only restricted by the mural wall of the South side of the future ambulatory.

### Historical transformations of the Cuenca Cathedral

Under the early masonries, the Cathedral of Cuenca as a “*Civitas Dei*”, a closed enclosure, provides a homothetic growth of its secular transformation chain (*Figure 3*). Its lantern tower, of Carolingian reminiscence, ensures overhead lighting,—cause of the last restoration project in 2009- and completes the first decades of the building life “provisionally” hiding its void. The space defined by the Cathedral generated an *inside-outside* structural discrepancy. These elements will be clarified during the following century with the eastward enlargement of three aisles reaching the level of the final and current façade. The cathedral’s first “primitive Gothic” wall structure proposes a compositional solution related with the Abbey of Mont Saint-Michel, in Normandy, on the border of Brittany, setting the Cathedral within a European scale.

The Cathedral historic discourse shows a systematic space of protection between the “outside and the inside”, which started with a primitive cemetery surrounding the temple, according to regulations of the Code of the “*Partidas*” from King Alfonso the tenth<sup>17</sup>. This “nobody’s land” of transition to the civilian town became integrated within, when this funerary tradition was forced to be moved to the inside walls and absorbed by the expansion of the ambulatory (Trias, 1999) [25]. A formal and functional restructure will be defined in a similar way to the one carried out, time later, on the second and final cloister. The ambulatory built around the church head hid the first enclosure of

reading of the elements, to conceptually “deconstruct” it and redesign it. This “return to the origin” requires starting at the historic level, and analyzing the meaning of the cultural landscape as a Medieval border —with Toledo, with Cuenca, and its Cathedral, at the beginning of the 12th century— when the stone walls were erected on a pre-existing Muslim settlement to increase the prestige of a European development in expansion.

A situation plan is not only a descriptive plan but it includes the content background as a declaration of principles. This approach structures a reading that determined by those times and the strategic topography, highlighting the cathedral innovation as Gothic architecture profile. The Cathedral experimental and avant-garde founding is a unique piece in the landscape of Southern Europe at the time. The Cathedral biographical profile, which in this first phase is basically territorial, begins a dialogue with the conquered place by studying the articulated parts of the design. Its

16. The Master Plan includes the floor dig out to precisely date the prior stratum, which is only known by the georadar study performed at the beginning of this century.

17. This legal code, “*Las Siete Partidas*”, regulated the dimensions of the burying spaces around the church mainly in the Middle Ages in the Kingdom of Castile.



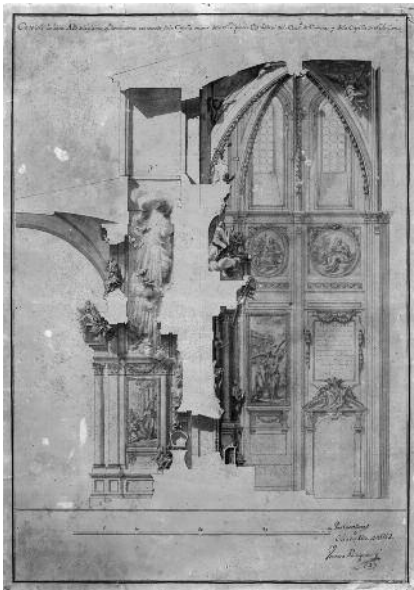


Fig. 4. Longitudinal section. "Transparente" project by Ventura Rodríguez. Courtesy of the School of Architecture, Madrid Polytechnic Univ.

the building; and in addition, it justified an important extension over the immediate "hoz"<sup>18</sup> altering a profile of defence, which had no meaning anymore.

Another major transformation, in the Cathedral of Cuenca, took place in the 1400s with the work of the cloister. It implied a new cloister running on the space where a previously demolished one of Gothic tradition stood. The goal was to match the ground level with that of the aisles of the church solving a functional problem of the transversal section. This problem was due to the land distribution in Medieval times originated by the defensive character of Castile. The

implementation of the cloister involved a deep levelling with *vertical alteration* as well as cultural, in the same way as the ambulatory had earlier been *horizontal*.

For the first time, important figures in architecture such as Andrés de Vandelvira or Juan de Herrera, architect of the works of the monastery of El Escorial, gathered in Cuenca (Ortega, 2009) [26]. The construction of the new cloister became particularly difficult because of the excavation in rocky subsoil. According to the chronicler, "its interior length is 87 meters approximately 39 metres wide, at the transept". The cloister defines an unusual *scale* concept, which plays a unique role in the landscape of the city and will be an essential parameter for the inscription as World Heritage. Anton Van der Wyngaerde in 1565 drew the first draft/design and two hundred years later, Juan Llanes and Massa, in 1773, corrected it describing the beginning of the "illustrated city". Ventura Rodríguez, at that time the King's architect and designer of many buildings all over Spain, would later transform the altar with a Baroque interior theatricality materialized in the previously cited "transparent" (Figure 4).

Large reform interventions on the building ended with this last reading of the *internal landscape* until the industrial period took place, when the already described restorations were performed. A last intervention on the closure walls would consolidate the process of architectural modifications, integrating the private chapels. This intervention, in addition to generating a change in the concept of limit —the interior and exterior of the Cathedral— physically weakened the frontier as a *discontinuous line* causing conflicts of stability in the twentieth century.

Together with this last concept of the Enlightenment Landscape, the most important fact was the addition of other *documental sources* in terms of Cultural Heritage<sup>19</sup>. Beside architecture itself, the document becomes a scientific source within the project design of the Cathedral. Anyway, it is not until the end of the Ancient Regime that the critical use

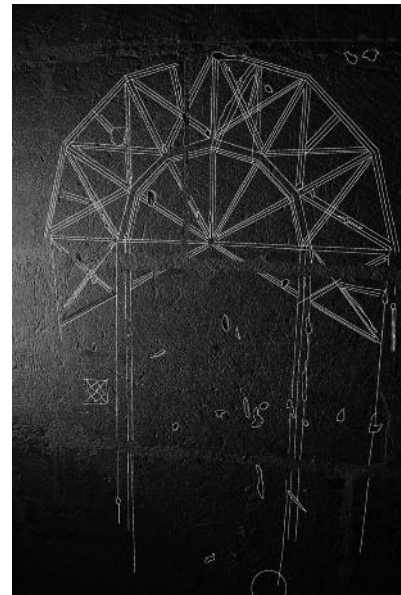


Fig. 5. Sketch engraved on the wall, inside, in the upper part of the Angel Tower. It represents a non-identified deambulatory structure. Drawn by an anonymous author, date unknown, discovered during the last restoration works.

18. The Spanish term "hoz" (ravine) is used in this region for the specific geological formation made by limestone along the rivers.

19. The Gothic origin is an example of geometric proportion, of repetition; a metrology, which obviously varies with time in architecture, and there are hands and elbows, proportions which coincide with plan and height.

of the document elaborates the historical meaning, which today represents the Restoration Theory. The interpretative value started in the 19th century suggests the disappearance of the “Libros de Fabrica”<sup>20</sup> of Cuenca’s cathedral, or the incompleteness of the Chapter Records, an unrecoverable loss<sup>21</sup> (Chacón, 2009) [27]. In addition to literary data there are drawings, diagrams, valuable plans<sup>22</sup> describing the changes that have occurred in these spaces, or in the decorations. In this way, the extraordinary value of the discovery of the trace of an unknown ambulatory<sup>23</sup>, at the time when recent works of consolidation of the dome were performed should be highlighted. It compensates earlier shortcomings as well as justifies the interdisciplinary work between archaeology and architecture (Muñoz, 2009) [28] (*Figure 5*).

## A MODERN RESTORATION

### First Romantic contradiction

Surprisingly, the first intervention, after the aforementioned collapse that inaugurated the 20th century, can be considered as an eloquent contradiction: the demolition of the Baroque façade, symbol of Cuenca Cathedral entrance to modernity and which still accommodated remains of the original Gothic one. In contrast, by restoring it in *stylistic restoration*, it disappeared. It is almost ironical to justify it as a theory that promotes the “industrial destruction” of the place<sup>24</sup>.

Ambulatory, cloisters, or the façade, which were basic arguments in the Cathedral historic transformation, will be claimed as constructive reasons in the Cathedral decline. These accumulations will be linked to the actions needed for the cultural and social understanding of the cathedral. Like a “strata storage” coexisting with the Romanesque-Gothic experiment of Cuenca, —the southernmost example in the region of Castile, with its successive “Renaissances”, “Baroque”, “Neoclasicisms”— ends in a nineteenth-century idealistic Romanticism which is followed by more destruction intervention on the transept *tower of lights*<sup>25</sup>. This last intervention with very bad results for the Cathedral, ends up being fortunate; indeed, even being very close in time to the replaced façade the result is the opposite. The certainly modern approach is carried out from a stable attitude which saves the authenticity of the monument; and this episode closes in an irreversible way, the *Viollet-le-Duc chapter* in Cuenca. The data managed has sometimes been particularly confusing, and as an example we can name the confusing hypothetical Francisco Javier Parcerisa engraving. The “fictional reality” of this engraving did not make a prudent Royal Academy of Fine Arts of San Fernando experimented consultant inspecting the interventions change it. The existing “eight-part vault” was maintained.

### Three decades of Heritage revision: 1979 - 2009

In an approach to move from landscape to object, Heritage protection and its reading today go hand in hand to channel memory and conservation processes. In the Cathedral of Cuenca, Modernity set up an exceptional policy of isolation. It re-established a strategy of normality regarding Time and Space<sup>26</sup>. Modernity, conceptually and methodologically,

20. “Libro de Fabrica” is the term used in Spanish to define the Chapters Records, documents which gathered the description of the works performed in the buildings.

21. A first historical document is well known, which talks about the church: “it was left unfinished... and it lacked the premises required for the religious cult and needed an urgent reparation since otherwise, some parts could collapse”

22. As the ones drawn by the 19th municipal technician or by the conservation architect Venancio Domingo in 1888.

23. An exceptional drawing discovered during the last conservation works 2009-2010.

24. The remains of the structure of the primitive Gothic façade together with the triple aisle enlargement, triple architrave front and mullion, which had suffered many pathologies and reforms, cracks and fires, disappeared. The remaining stratigraphic development, the last composition, of the pointed arches, disappeared with the industrial revolution.

25. Last century, there was a fruitful debate between Ricardo Velázquez Bosco and Luis Landecho at the Royal Academy of Fine Arts of San Fernando in an attempt to finish what had never been there. Their proposal was rejected this time.

26. *The Cuenca Cathedral Master Plan* is coordinated by the architects Maryan Álvarez -Builla and Joaquín Ibáñez.

adjusted the *cathedral patterns* with the European context and it denied any tempting improvisation to include these large-scale buildings through the conservation project. A thoughtful reflection started, then under a “hidden planning stress”, that aimed at protecting but also researching, documenting, teaching, disseminating, and learning.

At the end of last century cathedrals began to define specific thematic plans and the corresponding Master Plans, in the same way as historic theatres or bullrings had already accomplished. This began the process to refine the tools used to manage *programs*, ensuring interpretation processes in the new interactive dissemination framework and public participation of the digital society. Indeed, the aim was to ensure the building's sustainability through feasible policies of prevention, and virtual and physical accessibility.

The process culminating in the 1990s, conditioned by logical emergencies and needs to rationalize the planning, developed social supports for management and continuity in its supervision. These supports arose from almost experimental projects, when dealing with the changes intervening involves; in the case of the Cathedral of Cuenca when addressing the irresponsible criteria seriously affecting the building's stability as a whole. The intervention faced problems originated by having eliminated buttresses, centuries ago, prompting the obvious risk of collapse in the cross-section; but at the same time, restorer architects began to project the rearrangement of the natural lighting of the building. *Light*, essential factor in architecture, is incorporated as a necessary *perception factor* in correct restoration as order.

The “light factor” perception provides vitality not only for the obvious ability to sustain new activities but also for the possibility of properly re-reading the Cathedral's meanings (Cullen, 1996) [29]. An effort is needed by the citizen to incorporate this perception into its use in the city space and to establish an exchange between efficiency and balance, investment and benefit (Maldonado, 1972) [30]. The architectural space must be an operational venue where a large number of alternatives can be added to the landscape *itineraries* as serial visions between its *outside* and its *inside*. As constituent elements of a repertoire of outstanding concepts and symbolic pieces, these theses aim to unveil the extreme complexity to discuss the two most immediate risks: the uncritical and nostalgic temptation and the consequence of a specific analysis, understood as urban and already known characters.

Perception of these architectures becomes then eminently dynamic; and they need projects for which we must be prevented. Lightning rod, dry columns, or other mechanisms of current technology and regulations intended to protect the physical viability of an inevitable degradation is performed through the *roof restoration* at the end of last century solving a problem of basic conservation of the church aisles. At the same time, it solves various disputes of historic uncertainty, which had delayed a solution until then: it incorporates a “third way” to the solutions planned or executed<sup>27</sup> in the ambulatory. Architecture and the landscape implications offer now a strong dialogue between Culture and Technique that witness the restoration works carried out in these final years of the last century (*Figure 6*).

As a tangible heritage of *modern ruin*, produced by the unfinished restoration of the neo-Gothic façade itself, the monument articulates a pragmatic nucleated way of doing thing. It was necessary to undertake a precise and stra-

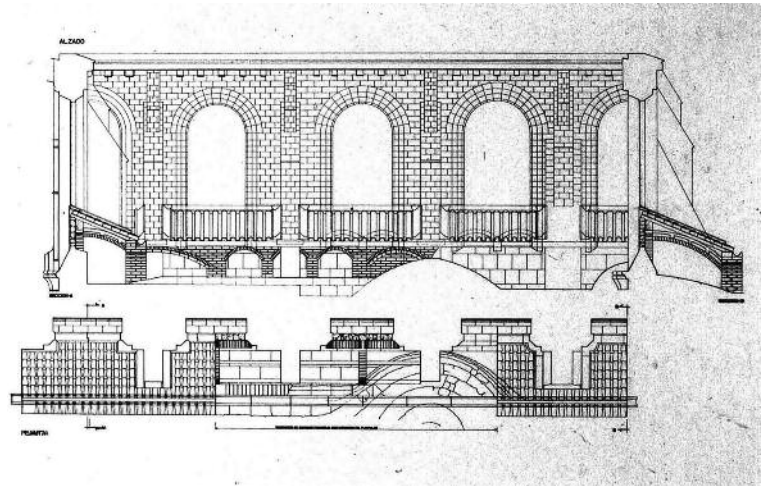


Fig. 6. Details and section of the restoration of the new cover of the ambulatory performed during the works of 1982.

27. It suggests an intermediate position in between model and idea originated from the “Toledana model”, which is interesting to analyze regarding restoration in the working models used for this project. They are not the first ones from the Cathedral of Cuenca; there is one on the transparent, which describes colours and textures, and another later one about the Neo-Gothic façade focussing on the volumetry of it.

tegic manner in the absence of a systematic survey and a budgetary reduction. In terms of *architectural acupuncture* the restoration's ultimate goal is to approach the contemporary landscape in spaces such as the cloister of the Cathedral of Cuenca. This requires the adaptation of the functional rules and facilities, but above all, it involves a strategy of skylining a transit place. When the architect intervenes in structural or mechanical matters —on the flying buttresses built in replacement of the previous buttresses which enabled the singular “chained vault” of the called Dr. Muñoz Chapel— we are not only ensuring the stability but also recovering interstitial spaces. A potential viewpoint to the vacuum over the ravine of the Huécar River, as well as the access to the archaeological reserve of the former “Camino de la Limosna”<sup>28</sup> forecasts another way to understand the quality of the space in these buildings<sup>29</sup>.

## Two last interventions highlighted

After more than one dozen of drawn up and implemented projects on the Cathedral of Cuenca in the past thirty years, the last decade allowed to draw several conclusions. The site plays the role of exceptional guest to confirm the theses within the in force Master Plan. It synthesizes arguments of memory in its present route. In addition, this means that new protocols are stated to define it: to know what Heritage we want to deal with, *what identity* it has, what *future* does it imply, and to make the present urban space more liveable (Nair, 2010) [31].

Entropy to be amended since the Napoleonic reform —in this “modern battle” on the Heritage concept of an obsolete culture —requires constant adjustments to the restoration strategy: in other words, understanding how to integrate the Cathedral's operational potential in this Internet Society. In this context of apparent ambiguity, interventions such as the ones completed recently on the cloister and the Tower of the Angel represent something more than a temporary culmination of the process. There are two strategic intervention projects in the monument material biography: the *internalization* cloister space, and the *externalization* tower.

Framed by the guidelines plan, these interventions are the result of what has been done in the past ten years: previous works on the roofs of the temple whose external configuration crowns the external landscape of the whole, and the volumes of the later Asunción Chapel. These works as part of the reflection on the Cathedral conservation imply a new reading of the building as a *historic landscape project*<sup>30</sup>. The goal confirms the existing nature of the place and its successive overlaps making it a positive factor in the spatial urban memory of the citizens.

## The intervention in the Angel Tower

The consolidation of the upper body of the “lantern tower” and the use of the cloister<sup>31</sup> define a concept of *closed garden*. Both mean, two keys of excellence, which offer a metaphorical dialogue, and also a dramatic dialogue, needed to understand the extreme conditions in which the dimensional strategy of the cathedral landscape has changed.

The Tower, with thirty six meters in height, on a natural basement of an equivalent height, defines an extreme dimension as a solid, while the squared cloister, with twenty-two by forty-five meters area, defines its geometry as a void. They are two material unresolved biographies, which as a synthesis close this contemporary reflection on the project of intervention in heritage and cultural landscape. The present territorial scale gives the Cathedral an *urban meaning*, an updated turning point in its consolidation. This reality appears only to the eyes of the person who is able to

28. It means a old pilgrim itinerary outside the church.

29. Archaeologists had studied earlier the anthropomorphous tombs found next to the base of the Giraldo Tower, of early chronology.

30. In this revision, the quality of the project mistakes can be noticed, both in its design and construction. For example, the poor construction of the Toledo Section of the Girola, which did not allow to evacuate the rain water, or forced solutions to associate the bottom plan of the Honda Chapel. It is therefore an updated cartography redefining the project and its programming.

31. Declared as ruin for more than two centuries by Ventura Rodríguez when he arrived to the city to project the reforms over the Transparente.



Fig. 7. Photograph of the cloister after restoration, in 2009.

enjoy it. In this sense, in contrast with the disproportionate effort of the high deterioration of the dolomitic limestone, the Angel Tower implies a unique overview of the guideline proceedings followed by History, since the beginning of the 13th century. The Tower rises above the axis of the façade, as a light cube, whose square structure plan is constructed with walls in a gallery using the "thick wall" technique —common in medieval Europe from Normandy, England, Flanders and Burgundy. From its origin, the closure of its overhead void using an auxiliary vault —the "eighth-part vault"— was a cause of controversy with the result of a long process of delay and fires.

Located at the highest elevation of the city, the Cathedral defines not only a stylistic example of transition architecture between Romanesque and Gothic styles, but also a *structural conflict* between wall and pillar. The Tower describes a temporary and constructive process, whose result is a "provisional vault" hiding the successive growths and the thwarted attempt to achieve eight springers for the needle, which was never built. Its delicate state at the beginning of last century forced to place a wooden winding shoring tower, later corrected with two ties of reinforced concrete<sup>32</sup>. This intervention has led to the definite consolidation of the much altered Tower faces, under a strict conservation criterion.

32. The listing of materials describes Cuenca as rich in wood, probably the first material used in the construction of the Cathedral. Timber is used in the marvellous wood carved ceilings and the new cloister designed in 1560.



Fig. 8. Access conflict between the cloister and the interior spaces of the church after its final resolution during the works of 2009.



Fig. 9. Detail of the moldings consolidation execution, performed in 2009, on the entablature of the area projected by Juan de Herrera in the cloister of the Cathedral.

multiple repairs and historical reforms —some very aggressive like the lifting of a second floor in the 18th century, others simply clumsy like the closures of the arches—add to the most serious problem: the incorrect connection which has so far prevented the construction of the entire operation (*Figure 8*).

Starting by an already ruined physical condition —to which the handicap of the ruin of the Tower of the Giraldo causing the partial collapse of some of the vaults is to be added— the restoration project now has solved all these issues within a very wide program. After centuries, the landscape of the church opens today to the cloister surprising the vi-

Supported by an intense work of archaeological research, which has also provided the referred results, the lack of full development up to the ground level still leaves many questions in terms of a precise scientific data, even though it has unveiled the bearing capacity in the basement —a research performed in the 1980s. Archaeology is here a cultural and geotechnical document<sup>33</sup>. The work is essentially a bonding between the two sides defining the walls, with specific replacement and volumetric restoration of the weathered stones and capitals, split by the different fires. The work on the winding Tower, solved using epoxy mortars, with fiberglass reinforcement of various widths, has been completed, rescued, re-used as Industrial Heritage and can now be accessed for maintenance<sup>34</sup>.

### Cloister intervention

The other great intervention, the restoration of the cloister, (*Figure 7*) has also been a spectacular work. The intervention has had a great local regional and national impact in the media<sup>35</sup>. The cloister's historical singularity and its execution difficulty have been kept hidden to the visitor these last centuries due to the pathologies<sup>36</sup> and the poor material condition it had. Built to be added to the Cathedral set, it has only been possible now after this intervention at the end of the year 2010. The goal was to connect, for the first time, the temple aisles level with the cloister through a piece of unique transition, like a *triumphal access*, the so-called Jamete's Arch, in homage to its author. This would solve a historical composition mistake.

The limestone "box" excavation seems to be the inexhaustible source of problems the arch has burdened the cloister existence until today. The building is a sum of mul-

33. A non-aggressive superficial cleaning of the interior walls has been carried out by manual brushing.

34. A binding was performed by a 90 cm glass fibre bar 12 mm and 8 mm in length and width.

35. It is the only Gothic cathedral in Spain which has a cloister design by the famous architect Juan de Herrera.

36. The example of the Valladolid Cathedral is another global project carried out by the same architect, although its construction was not finished.

sitor. A *new landscape* is offered for the first time as a very important journey for the monument and the city of Cuenca, but some extremely weak materials needed to be consolidated before allowing the access.

Great section losses, bulging of shafts and pillars, virtually disappeared flooring, the monument abused by improper use, and many pathologies has made the intervention project developed for the Cathedral rehabilitation a guide to the reading of an “archaeological situation”. All these facts have advised to carry out a very physical, metaphorical, *contemporary freezing*, in order to consolidate the building in its damaged parts, binding them with techniques causing the lowest possible aggression.

In a similar way to that used in the Tower, we have sought to obtain the benefit of preserving data and understanding it, but at the same time, alleviating *the degradation over time*. The project has set out to ensure coexistence: complicity between some deteriorated remains and new techniques or materials needed to ensure its future preservation<sup>37</sup> (Figure 9). The project has solved the intervention as a dual, cultural, and physical discipline, to overcome different problems such as rain water —a major problem as the building faces an extreme climate, at 1000 m altitude, with oscillations of fifty degrees between seasons and heavily beaten by wind or frost and heat. With the inclusion of design drainage and evacuation systems, as well as protection of the ornamented areas, the materiality of the cloister is assured.

Urban and architectural integration will someday be completed with the musealization and the recovery of the Baroque garden that gave meaning to its open space and which, for economic reasons now it has not been performed. The restoration of the fountain that orders the courtyard is not any longer a chapter in the pending gardening, because it is part of the whole, the city or its landscape. The aggression of the groundwater emerges in the cuts of the white limestone base. Still today, the fountain remains as a generator of serious problems and there is a need to have data and to know in depth the problem, to ensure its proper conservation. It can be said that the technical choices made in this last restoration are justified as not only solidification of damaged pieces but also as a dialogue between new essential additions to recuperate, in a minimalist way, the capable solid and its reading. Addition of industrial prosthesis has supplemented the process, with for example, a zinc roof covering a great span to protect the whole entablature.

The unique scenery of the space is enriched with an inventory of glazes that deserve an additional explanation for its historical interest. In the year 1547, when the replacement of the existing cloister was substituted and the architect of El Escorial, Juan de Herrera was called, —his architecture establishes the stylistic trend— the stone extracted from the quarries near the bank of the Júcar river basin would have been obviously-black: granite. The Cathedral image was, however, very different and it needed a surface treatment of patina characteristic of the Baroque culture. To obtain the “Escorial image” a wax or oil surface treatment is then performed according to mixtures of natural pigments with flax-seed oil dissolved with turpentine. This provided an *added value* of better protection for the base stone weakness although it evolved differently depending on the orientation of each wall, and this has required a thorough recovery process affecting the patina.

Both pieces allowed finishing the two mechanisms of historical urban landscape, the tower and the courtyard. The completion of these two works concludes, for now, the contemporary interventions on the Cathedral of Cuenca, in its last phase (Figure 10). Its readability and its use, as examples of an incomplete action of available architectures of time and space, justify in its uniqueness both its conservation and its dissemination. This implies a new chance rather than being a drawback and mainly emphasizing the infrastructures of the present landscape. By ensuring this strategic condition of an open status process, the *modern project* over the existing one —in these early decades of the

37. When the elements exceed one third of their volume by sanding, substitution of these elements by abstract capable solids was needed. If this was not needed, a binding process with 90 cm long and 12 mm in diameter glass fibre rods were used to ensure their span and bending strength.

Millennium— provides meaningful questions to answer on a fully urbanized and *democratic landscape*<sup>38</sup>. This means that a cathedral resembles a spatial avenue (Buck-Mors, 2001) [32] with the same structural importance. That is, an idea of multiplicity of stimuli (Rowe, 1998) [33].

## Conclusions

The restoration project of the Cathedral of Cuenca has provided a frame for an in-depth review of concepts such as Cultural Heritage, and has allowed incorporating new parameters to be considered for the architectural intervention. This approach makes of the stratigraphic wealth, from a contemporary perspective as a materialized memory, an ally and not an obstacle. Cuenca Cathedral has provided a clear mechanism for this survey analysis.

From this study, four conclusions have been drawn:

- 1) Architectural Heritage is understood as an open cultural process.
  - i) In this way a correct balance is reached between method, matter and memory.
  - ii) The industrial time of the monument establishes a new land and artistic interpretation of Matter and Memory.
  - iii) The architecture of the monument foretells a contemporary media reading of the present architectural discipline.
- 2) Heritage is linked to the environment and specifically to sustainable values;
  - i) The monument situation plan has become an important contemporary palimpsest.
  - ii) The bond between heritage and landscape in the last years solves historic debates in the present project.
- 3) Heritage defines a public space for dialogue among different actors in our intercultural society;
  - i) As a public space, heritage unveils unknown parameters in the monument perception
  - ii) The monument understood as public space gives the project an open profile which adds up, once again, to the city project.
- 4) As a holistic conclusion, Architectural/urban Heritage refers to accessibility concepts in the contemporary global Communication and Information Society.
  - i) The changes in social sensitive alter the methodology, and this in turn, alters the concept, and not the opposite. It is an innovating strategy in which Cultural Heritage becomes an interactive element among the citizens enjoying the Heritage.
  - ii) A systematic incorporation of all the data available as a result of the new knowledge tools applied changes the Heritage interpretation of the monument.
  - iii) The last works performed are strategic pieces —vertical and horizontal— altering the contemporary monument landscape in its urban and land integrity.

These has provided an understanding of contemporary Heritage as an infrastructure of the new landscape project developed in the present scattered city. In this interpretation, both, perceptive and symbolic choices are important. Cuenca's restoration unveils elements of an infrastructure to confirm the *restoration project potential* as a new contemporary "portulano"<sup>39</sup>.

38. Working on accessibility, both physically and virtually, defines new questions to guarantee the transmission, reinforcing an observatory policy to monitorize it. See "PatrAc Project" 2007-11 I+D+I Spanish National Research Program.

39. Definition of the nautical map often used in the 12th Century and up to the 17th Century distributing the space by paths among harbours. From the Latin word portus (harbour).





Fig. 10. General cross-section of the building where the cloister can be seen on the left and the church with its Angel Tower on the right over the crossing.

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